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Forest & Shade Tree - Insect & Disease Conditions for Maine

May 15, 2007

During the past few weeks the weather has been ideal for plant growth, with a good number of warm days and adequate, but not excessive rains. We have had no reports of late frosts killing the new growth of any trees, and it looks as though we may be in for a near-normal spring. This is good news, in light of the damage that has been caused in the previous two or three springs by considerable flooding and cooler temperatures.

If you are planning to plant landscape trees or other woody plants this spring, keep in mind the proper planting depth when you set out nursery stock. Dig your planting holes wide rather than deep, so that the root ball sits on undisturbed ground at the proper planting depth as you backfill. And check to make sure the top of the root ball, or the top of the potting mixture for container stock, really represents the top of the root system. Often the true root system is buried quite deeply within the container or root ball, and unless the extra layer of soil or potting mix is removed, the tree or shrub may inadvertently be planted too deeply. Planting too deeply has been shown by research arborists to be one of the most common and significant tree planting errors made.

Reminder: Arbor Week is May 21st - May 26th. Remember, Project Canopy is hosting a state-wide Arbor Day celebration on May 21st from Noon to 3:00 PM at the Augusta State Capitol. Maine Tree City USA awards will be presented, and there will be the distribution of tree seedlings during the ceremony. Please join us to show support for all the ecological and social benefits provided by trees!

Quarantine Update

***Hemlock Woolly Adelgid** - The Maine Forest Service and Maine Department of Agriculture are working together to revise the current hemlock woolly adelgid quarantine. Revisions will include the addition of regulations on movement of hemlock products within the State (current rules apply only to movement between states) and the revision of wording to match current rule-making guidelines. An opportunity for public comment will occur in early- to mid-July.

Guide to Pest Management for May

Remember that this is just a guide and that conditions will vary. Information on any entry preceded by an (*) may be available on our website or can be requested by calling or writing to the Insect and Disease Laboratory, 48 Hospital Street, Augusta, Maine 04330-6514, Phone (207) 287-2431, Fax (207) 287-2432.

Insect/Disease	Cultural Controls	Chemical Controls
*Balsam Gall Midge		The tiny mosquito-like adults should emerge between now and early June. Populations are expected to be low in most areas but Christmas tree growers are urged to watch their plantations and be ready to treat if necessary as the new needles emerge and flatten with Diazinon or chlorpyrifos (Lorsban).
Balsam Shootboring Sawfly		Too late now for chemical control.
*Balsam Twig Aphid		Last chance now for control in southern Maine. Control may be achieved in northern and eastern Maine as buds begin to break using Diazinon or chlorpyrifos (Lorsban).
Balsam Woolly Adelgid	Rogue out and destroy infested stock from Christmas tree plantations and be sure that planting stock is from a clean source. In forested situations harvest ahead of mortality.	Esfenvalerate (Asana). Currently low population levels will render treatments unnecessary for most growers this year.
*Birch Leaf Miner		Watch for black fly-like adults around the foliage from now through mid-June. Apply foliar treatment with carbaryl (Sevin) or acephate (Orthene) when small developing mines (seen as small translucent spots in the leaves) are evident.
*Browntail Moth	Avoid mowing or raking in infested areas to avoid stirring up the hazardous caterpillar hairs. Clip overwintering webs next winter.	Treatment against the caterpillar stage should be done now. Call for more information. **New regulations for spraying near water**.
*Gypsy Moth	Begin watching for larval activity this season now. Tiny larvae frequently drift around on spring breezes. If found, be prepared to remove and destroy egg masses next fall.	Monitor populations now to determine whether or not control will be necessary. Treatment options include Bt, acephate (Orthene) and carbaryl (Sevin).

Insect/Disease	Cultural Controls	Chemical Controls
*Hemlock Looper		Watch for tiny looper larvae with black heads in early June. Survey methods are available and should be done in early June for this season. Treat in late June if necessary with Bt.
*Hemlock Woolly Adelgid	Please contact us.	Please contact us.
Larch Casebearer		Too late now for control.
*Mountain Ash Sawfly	Remove and destroy infested leaves early as egg pouches or tiny larvae appear in late May.	Treat older larvae with acephate (Orthene) or carbaryl (Sevin).
*Pine Shoot Beetle	Please contact us	Please contact us.
Rhabdocline and Swiss Needle Casts of Douglas Fir	Plant trees at wide spacings and keep weed growth mowed. Rogue severely affected trees.	Chlorothalonil (Bravo, Daconil) when about 10 percent of trees have broken buds, and twice again at two week intervals.
Rhizosphaera Needlecast of Spruce		Chlorothalonil (Daconil) copper hydroxide (Kocide 2000), or mancozeb (Protect T/O) when needles are +/- 0.5 inch long and again 10 days to two weeks later
Sphaeropsis (Diplodia) Tip Blight of 2 and 3 needle Pines		Copper hydroxide (Kocide LF) or chlorathalonil (Spectro 90 WDG) shortly after budbreak and again 10 days to two weeks later.
*Viburnum Leaf Beetle	Prune off twigs with egg pockets on them before hatch (early- to mid-May).	Treat infested shrubs early (before the end of May) with acephate (Orthene), carbaryl (Sevin) or chlorpyrifos.
*Yellowheaded Spruce Sawfly	Small infestations may be controlled by hand picking larvae and dropping them into soapy water.	Watch for adults around foliage in late May and early June. Look for developing larvae in June and be prepared to treat with carbaryl (Sevin), chlorpyrifos (Lorsban) or spinosad (Success) if populations warrant.
Yellow Witches Broom of Balsam Fir	Prune brooms from Christmas trees, taking care to make pruning cuts below galls at the bases of brooms.	

***NOTES**: These recommendations are not a substitute for pesticide labeling. Read the label before applying any pesticide. Pesticide recommendations are contingent on continued EPA and Maine Board of Pesticides Control registration and are subject to change Other effective registered fungicides are available and marketed under other product names. No endorsement nor the exclusion of similar products not mentioned by the Maine Forest Service is intended or implied. Ask your supplier for specifics, and always read the label of any product before applying on site.

Restricted-use pesticide may be purchased and used only by certified applicators. **Caution** : For your own protection and that of the environment, apply the pesticide only in strict accordance with label directions and precautions.

INSECTS

***Balsam Woolly Adelgid** (*Adelges piceae*) - The adelgid population has been low in Maine since 2004 when low winter temperatures caused heavy insect mortality. The population may be building again and we have plans to start regular monitoring of this serious balsam fir pest. Christmas tree growers should rogue out any fir showing swelling at the nodes.

Birch Casebearer (*Coleophora serratella*) - Larvae are now out and feeding on expanding gray birch leaves in southern and central Maine. Populations are light in the areas checked.

***Birch Leafminer** (*Fenusa pusilla*) **-** Tiny developing mines, resembling translucent spots along the margins of the new leaves, have begun to appear in the southern half of the State and will likely show up by the end of the month in the north. Mines of another **white birch leafminer** (*Messa nana*) usually appear in June.

***Browntail Moth** (*Euproctis chrysorrhoea*) **-** Browntail moth larvae have emerged from their overwintering webs and are feeding on new foliage in the Brunswick/Topsham area. Very few browntail webs were found outside this vicinity. People in the greater Portland area should check for larvae before having any treatments applied to trees.

For those with browntail larvae this is the time to plan chemical treatment of areas that have webs. (It is too late now to accomplish browntail control through web clipping). Pesticide application should be completed prior to caterpillars developing toxic hairs in early June. We strongly recommend hiring a licensed applicator to control this pest. Homeowners generally should not attempt control of the browntail with pesticides to avoid both environmental and personal health concerns. There are new restrictions on controlling browntail moth near water so please check before spraying.

Eastern Tent Caterpillar (*Malacosoma americana*) - Webs of this early season defoliator are few and far between. If you have a web in your crab apple or cherry tree you can simply remove the webs containing the caterpillars and place them in water with a squirt of dishwashing detergent or use a Bt products.
Either approach will kill the caterpillars, but do not consider burning them out because this process will result in more injury to the tree than the caterpillars could ever cause.

***Fall Cankerworm** (*Alsophila pometaria)* - The tiny inchworm larvae have just begun emerging and feeding on oak in southern Maine. Cankerworms feed on a variety of hardwoods, especially oak, elm and apple. Control applied early is more effective then waiting until most of the foliage has been eaten.

***Gypsy Moth** (*Lymantria dispar*) - Shadbush is blooming so gypsy moth larvae should be hatching, now we need to find some egg masses to check! Populations of gypsy moth are low as rainy weather the past three springs allowed the fungus *Entomphaga maimaiga* to decimate the caterpillars. Few egg masses were found anywhere in Maine when surveys were conducted last fall.

***Hemlock Woolly Adelgid** (*Adelges tsugae*) – Several new detections of hemlock woolly adelgid have been reported by landowners this spring. Check your trees for signs of this destructive forest pest by examining the undersides of last year's growth for white woolly masses (ovisacs). Hemlock woolly adelgid ovisacs will usually be located on the underside of the twig at the base of a needle and resemble a cotton swab. They are

approximately a tenth of an inch in diameter. If you suspect you have hemlock woolly adelgid, please contact Allison Kanoti at 287-3147.

Pear Thrips (*Taeniothrips inconsequens*) - Pear thrip populations appear to be low with little damage observed so far this year.

***Yellowheaded Spruce Sawfly** (*Pikonema alaskensis*) - Adults will soon be active around young spruce trees. They are particularly attracted to open grown white spruce under 12 feet tall. The eggs hatch in June and most people do not notice the yellow (orange)-headed, striped, green larvae until substantial amounts of foliage have already been eaten off the tree. If you have spruce that have bare lateral branches especially near the top of the tree, check for larval feeding in June.

DISEASES AND INJURIES

Apple Scab: An alert reader from Chester, Maine has offered an update on our apple scab recommendations published in the last Conditions Report (April 24th, 2007). He indicated that in addition to the fungicides listed there, Captan, Manzate, Polyram and Sulfer are also effective, registered, and may be preferred. Additional varieties of apple that are resistant to scab include Liberty, Pristine, Jonafree, Freedom, Redfree, Crimson, Enterprise, and William's Pride. Growers interested in more detailed information on apple scab should also refer to the Maine Apple IPM Program website (*http://pmo.umext.maine.edu/apple/AppPestResport.html*). And, as always, many thanks to the Chester grower, and to any others willing to share their first-hand knowledge and experiences with tree insect and disease problems!

Anthracnose Diseases of Hardwoods: Due to the more normal weather conditions this spring (compared with the 2005 and 2006 spring seasons), anthracnose diseases of hardwoods are expected to be less prevalent and less damaging this year. Although we have had some good rains, the weather to date has been punctuated by periods of milder, drier weather. If this trend holds for another month or so, the leaves should be in good shape to function well throughout the remainder of the season.

***Rhizosphaera* Needlecast of Spruce**: Unfortunately the conifers are not in as good shape as the hardwoods. This is because evergreen trees rely on holding needles for three to seven years (depending on the species) to contribute to food (energy) production by photosynthesis. White spruce and Colorado blue spruce in particular have been heavily damaged over the past two years from excessive needle loss caused by *Rhizosphaera* needlecast disease. Numerous calls have been received at the Lab this spring, concerning this needle disease. Protecting the current-year needles will be important for trees to maintain reasonable health, and begin to recover the photosynthetic production they require for long-term health. In addition, of course, the needle loss is unsightly, and reduces the effectiveness of affected trees for screening in landscape plantings. Fungicides (chlorothalonil [Daconil], copper hydroxide [Kocide 2000], or mancozeb [Protect T/O]) should be applied when new needles are about 0.5 inches long (about this week for mid-Maine locations), and again ten days to two weeks later, for full protection.

***Sphaeropsis* (*Diplodia*) Tip Blight of Two- and Three-Needle Pines**: As with spruce needlecast, now is the time to apply fungicides to control tip blight of red, Scots, and Austrian pines. Timing of fungicide application

will be the same as that of spruce needlecast; the first application should be made shortly after the buds break, and again 10 days to two weeks later. Appropriate fungicides include copper hydroxide (Kocide LF), and chlorothalonil (Spectro 90 WDG).

White Pine Blister Rust: This is the best time to find and spray *Ribes* (currants and gooseberries) for white pine blister rust control. The *Ribes* plants are now in full leaf and can be easily identified. Aeciospores produced by the fungus (*Cronartium ribicola*) that causes white pine blister rust are being disseminated from infected pine now, and infecting the leaves of the *Ribes* plants. By mid- to late summer, the infected *Ribes* leaves will begin to produce the basidiospores, which can then infect white pine. Removing the *Ribes* plants now by spraying with an herbicide or by physical eradication will ensure that the spores able to infect white pine will not be produced. If you are unsure of techniques, please call for assistance and information. If woodlot conditions warrant, a blister rust technician is available for personalized, on-the-ground help.

05/07 Forest Health & Monitoring Division Augusta, Maine